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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,061	03/12/2004	Takahiko Yamasaki	36549	8441

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EXAMINER

LEUNG, PHILIP H

ART UNIT PAPER NUMBER

3742

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/800,061

Applicant(s)

YAMASAKI ET AL.

Examiner

Philip H Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5-20 & 8-2-2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The drawings filed 4-12-2004 are acceptable.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:  
High Frequency Heating Apparatus with Steam Generator.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:  

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
4. Claims 1, 8, 9, 11, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoneno et al (US 5,525,782).

Yoneno shows a high frequency heating apparatus for heating a thing to be heated, comprising: a high frequency generating portion 32; a heating chamber 2 for accommodating the thing to be heated; a steam supply portion 40 for supplying steam into and serving to supply at least one of a high frequency and steam into the heating chamber; and a partition plate which serves to mount the thing 1 to be heated thereon and is provided to be upward removable apart from a bottom face of the heating chamber at a predetermined interval (shown in Figures 4-7), thereby dividing a space in the heating chamber, wherein the steam is supplied into an upper space (discharge port 8, 17) positioned above the partition plate (see Figures 4-14 and 21 and col.

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7, line 12 – col. 16, line 4). In regard to claims 8 and 9, heater 3 is the claimed preheating means including an upper heater provided in an upper part of the heating chamber. In regard to claim 11, see Figures 5, 6, 14 and 21. In regard to claim 12, see Figures 4-6. In regard to claim 14, see Figure 5. In regard to claim 15, see Figures 9-12 and col. 10, line 63 – col. 11, line 13 and col. 12, lines 13-48.

5. Claims 1, 8, 9, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurita et al (US 6,232,587).

Kurita shows a high frequency heating apparatus for heating a thing to be heated, comprising: a high frequency generating portion 4; a heating chamber 3 for accommodating the thing to be heated; a steam supply portion 12 for supplying steam into and serving to supply at least one of a high frequency and steam into the heating chamber; and a partition plate 27 which serves to mount the thing 2 to be heated thereon and is provided to be upward removable apart from a bottom face of the heating chamber at a predetermined interval, thereby dividing a space in the heating chamber, wherein the steam is supplied into an upper space (discharge port 10) positioned above the partition plate (see Figures 3 and 6 and col. 4, line 53 – col. 5, line 44). In regard to claims 8 and 9, the regenerating plate 28a is the claimed preheating means including an upper heater provided in an upper part of the heating chamber (see Figures 3 and 7 and col. 5, lines 41-59 and col. 7, lines 34-58). In regard to claim 12, see rails 25 in Figures 3 and 6. In regard to claim 14, see vapor direct guide 48 in Figure 3. In regard to claim 15, the antenna with the magnetron 4 and waveguide are the claimed high frequency distributing means as shown in Figure 3 and col. 5, lines 3-9.

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6. Claims 1 and 14 are further rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al (US 6,133,558) (cited by the applicant).

Ueda shows a high frequency heating apparatus for heating a thing to be heated, comprising: a high frequency generating portion 14; a heating chamber 13 for accommodating the thing to be heated; a steam supply portion 16 for supplying steam into and serving to supply at least one of a high frequency and steam into the heating chamber; and a partition plate 20 which serves to mount the thing 19 to be heated thereon and is provided to be upward removable apart from a bottom face of the heating chamber at a predetermined interval, thereby dividing a space in the heating chamber, wherein the steam is supplied into an upper space positioned above the partition plate (see Figures 3, 5, 8, 9 and 16 and col. 4, lines 24-39).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 5, 10 and 16-18 are rejected under 35 U.S.C. 103(a) as being obvious over Yoneno et al (US 5,525,782), in view of Kurita (US 6,232,587).

Yoneno shows every feature as claimed except for the use of a high frequency material for forming the partition plate. Kurita shows a microwave oven with steam generating portion and also partition plates 28a and 28b of a microwave absorbing material for generating heat in response to the microwave generation in the heating chamber to act as a preheating means to increase the temperature in the heating chamber (see Figures 3 and 7 and col. 5, lines 41-59 and col. 7, lines 34-58). To form the food supporting partition plate with the same material would have been obvious to an ordinary skill artisan as this would heat the food more efficiently because of direct food contact. It would have been obvious to an ordinary skill in the art at the time of invention to modify Yoneno to use a microwave absorbing material to form the partition plate as the regenerating plates for preheating the oven for more efficient heating result, in view of the teaching of Kurita. In regard to claims 16-18, the exact heating steps would have been a matter of engineering expediencies depending on the material of food and type of cooking desired once it is taught to use a preheating step by Kurita (see Figures 10 and 11 and col. 7, line 32 – col. 9, line 67).

9. Claims 2-4, 6, 7 and 13 are rejected under 35 U.S.C. 103(a) as being obvious over Yoneno et al (US 5,525,782), in view of Kawada (JP 54-10460).

Yoneno shows every feature as claimed except for the location of the steam generating portion and the material of the partition plate. Kawada shows a microwave oven with a steam generating portion on the bottom of the heating chamber below a metal partition part 21 and 22

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as shown in Figure 3. It would have been obvious to an ordinary skill in the art at the time of invention to modify Yoneno to locate the steam generating portion on the bottom of the cooking chamber below a metallic partition plate so that steam can rise up the plate for direct steam heating the food while preventing the microwave from going into the water heating components, in view of the teaching of Kawada.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ueda et al (US 6,040,564) is further cited to show the use of microwave absorbing material for forming partition plates 22 in a microwave oven with steam heating and Jean-Francois (FR 2 670 272) is further cited to show the well known use of a perforated metallic plate (4) to shield microwave from entering a chamber in a microwave steaming device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (571) 272-4782.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 472-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
2-18-2005